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THE ROLE OF THE POSTERIOR URETHRA IN CHRONIC URETHRITIS.

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THE erratic conduct of gonorrhœa is a matter of universal knowledge. It is probably the only feature of that interesting disease upon which there is wide consensus of opinion. Gonorrhœa varies from that simple and benign malady which the sophisticated young man would rather have than a bad cold, to the disease which, through its ultimate effects, undermines health and destroys life; from the three-day indisposition to the endless *goutte militaire*.

Without consuming more time on the discussion of this feature of the variation in the length of time required for the cure of a gonorrhœa, let me express the uncertainty of this subject at the present day by quoting the honest and candid words of Dr. George E. Brewer, in his article on "Acute Urethritis," in the recently published "American System of Genito-Urinary Diseases." After giving statistics of cases in which cessation of discharge followed the use, after two weeks, of bichloride irrigations, he adds: "These statistics I believe to be as conscientiously prepared and as accurate as any others gathered in the same manner from the same class of cases suffering from this disease, yet I believe them to be absolutely worthless from a scientific point of view, for even my comparatively limited experience in the treatment of urethral disease has taught me that the simple cessation of discharge by no means indicates a cure of the disease; and I am prepared to say, without the slightest hesitation, that it is my belief that had a careful and thorough examination been made in each instance at the time when I reported the cessation of all discharge, not one case of my three series of cases would fail to show the unmistakable evidences of uncured urethritis, which might, under favoring conditions, again become active and furnish a secretion which would become contagious.

"Regarding the length of time necessary to effect a complete and perfect cure by this or any other method of treatment, I must confess myself wholly unable to present a rule which would be even approximately correct, as in this disease, perhaps more than in any other, success depends upon so many conditions which are intimately associated with the temperament, personal habits, and general health of the patient."

Before the advent of Neisser's gonococcus, and while the discussion as to the virulent or non-virulent nature of gonorrhœa was still on, both sides in this discussion had little difficulty in explaining these widely differing variations in duration and severity of the disease; the non-virulists explained



it on the ground that the disease, urethritis, was not bound to any degree of regularity by ties of specificity or uniformity of origin, but was regulated in this respect by many extraneous as well as intrinsic influences, such as the hygienic conditions prevailing, the susceptibility of the patient, his condition of health, etc.; while the virulists held this very variation to be one of the chief marks of distinction between virulent, contagious gonorrhœa and non-virulent or simple urethritis, and accounted for it on that score—light cases being looked upon as non-virulent, the others as virulent.

Since the presentation and dissemination of the belief in the gonococcal origin of true gonorrhœa, the non-virulistic school has thinned out to a condition almost of silenced minority; and we, firm supporters of that doctrine, are allowed, without confutation, to complaisantly account for the wide variances alluded to on the score of the presence or absence of the gonococcus—asserting that true gonococcal urethritis does not get well under four or five or six weeks, while those cases which do recover in less time than that are doubtless not due to the gonococcus, but are the product of some of the sixteen kinds of urethral organisms which Legrain* has run down and described to us as being eminently capable of inducing different forms and grades of urethritis.

I am a firm believer in Neisser's gonococcus and its noxious possibilities, but I cannot believe that the presence or absence, alone, of that organism determines the difference alluded to; and I should like to refer briefly to two cases which hardly allow us to acquiesce in such complaisancy; which, added to others that have come under my observation, but from lack of controlling conditions have not been as clean-cut in their clinical portrayal, have convinced me that urethral inflammations due to gonococci may display as wide variations with regard to severity and duration as if they were the result of gonococci, on the one hand, and of simple, non-gonorrhœal irritants, on the other.

Case I.—Profuse, purulent gonococcus-containing discharge from the urethra, beginning a week after exposure; passing through the increasing, stationary, and declining stages, with infection of the posterior urethra and persistence, for a time, of irritative symptoms and the post-gonorrhœal Tripperfäden. Finally, under care and strict abstinence from sexual relations, these disappeared almost entirely in about three months.

Case II.—This patient (the same as above) comes a year later, with a profuse, purulent gonococci-containing urethral discharge, which he says began two days after intercourse. But though he could, and did, account for the attack of gonorrhœa previously related, since it followed an intercourse with a prostitute, this present attack mystifies him greatly. To avoid the possibility of a repetition of his experience of a year ago, he had taken the precaution to confine his sexual relations to an unsuspecting source; but, to make assurance doubly sure, he had used a clean and fresh unbroken condom in the act of intercourse. And yet he has acquired a clap! This attack, however, in proof of the unreliability of the gonococcus as a criterion for prognostication, yields readily to simple astringent medication; and, after a few weeks, not even Tripperfäden are left in sufficient abundance to justify continued treatment.

*Legrain: Des Microbes des Ecoulements de l'Urethre, These de Nancy, 1888.

I have likewise observed cases of traumatic, non-venereal urethritis which had lasted for months or years, one in a medical gentleman which had existed at least three years. The conclusion is unavoidable, therefore, that the presence or absence of gonococci is not the sole factor which determines whether an acute urethritis is to be a rapidly-healing one, or a never-ending one. And this, as I said, independently of abnormalities such as wide-calibred stricture, narrow meatus, etc., which have held such wide dominion in the medical mind as inducers of chronic gonorrhœa. That gonorrhœa requires no such anatomical defect for its indefinite prolongation is evidenced by the numerous cases which we all have in which the most scrutinizing examination fails to disclose any signs of stricture other than the natural variations in the calibre of the organ; or cases in which such variations, looked upon as noxious though natural, are removed by cutting or stretching and yet no relief follows. Consequently, in our endeavor to be both scientific and successful, we must find some other cause that will bear the onus of being a prolific source of chronic gonorrhœa. If "granular urethritis" or "catarrhal urethritis" or "hypertrophic urethritis" or "infiltrating urethritis" be offered as causes to account for the frequent indefinite prolongation of gonorrhœa by such pathologists as Oberländer, they do not satisfy us, as we still wish to know what it is that has produced these several pathological conditions? To be sure, "glandular urethritis" is a pathological condition which also accounts, in part at least, for the prolongation of a certain proportion of gonorrhœas; but the question obtrudes itself on us, even in that case, why is there glandular urethritis in one case and not in another? So that pathologists with sharply drawn distinctions as to varieties of urethritis have not satisfactorily solved the problem.

Urethral therapists, ardent advocates of new or specific remedies for gonorrhœa, as each has been brought forward, though explaining it on the ground of inefficacy of previous modes of treatment, have each in turn, from time immemorial, failed to establish the fact that the particular mode of treatment or the remedy for which they were then contending would do away with prolonged gonorrhœas. And they have been compelled, one after the other, to admit that it was not always because of inadequate or erroneous therapy that the duration of clap had not been shortened. Have we not but lately witnessed practically the discarding of the antiseptic irrigation method that seemed destined to sweep all other methods from the practitioner's hands, not to speak of the successive failures of thalline, resorcin, bichloride of mercury, etc., as efficacious specifics? So that maltreatment or lack of modern medicines and methods cannot account for the continued occurrence of prolonged claps. No more will the condition of general health, conduct of life, hygienic influences, etc., account for the frequency of this condition. These may all be favorable in any number of instances, and yet the evidences of gonorrhœal inflammation do not cease. All of these various factors are the ones to which prolonged gonorrhœa is usually attributed; and though I acknowledge their relatively important bearing, as having a contributory influence, I believe that there is one which is vastly more prevalent, more constant, and more directly influential in the prolongation of clap than any one or even a number of these—a con-

dition that surpasses in frequency, if not in consequences, the much-vaunted stricture or the omnipresent narrow meatus.

I am well aware that infection of the posterior urethra is almost universally recognized, by advanced practitioners of the present day, as a complication of gonorrhœa that is difficult of cure when it does occur; that causes a considerable degree of annoyance to the constantly urinating patient; that interferes with the regular course of treatment which has been prescribed; and that, after apparent recovery, offers secure intrenchment for the baleful gonococcus, which, on being at least temporarily subdued, bides its time for outbreaks a month, a year, or a decade, perhaps, in the future. But I do not believe that the full importance of posterior urethral inflammation is yet generally conceived; that its frequency is even approximately estimated in general, or that its bearing on the treatment of almost every case of gonorrhœa is understood, recognized, or acknowledged.

I do not think it necessary to allude to the far-reaching consequences of infection of the posterior urethra when it does occur as a complication of gonorrhœa; I take it that before this assemblage it would be supererogation to dilate on the opportunities for unlimited hetero-infection afforded by chronic posterior urethritis; on the capacity for indefinitely repeated auto-infection endowed by it; and on the common difficulty of restoring such a urethra to health without direct local treatment, besides its other portentous aspects in the way of arousing reflected irritations, etc. I take it that the important influence, in these various directions, of posterior urethritis, when it does occur, is fully conceded by the gentlemen present; so that if it is a frequent complication, the *role* which I would claim for it in the establishment and maintenance of the affection under discussion will be granted as well.

I may say that the degree of frequency with which I estimate infection of the posterior urethra in true gonorrhœa is expressed by the opinion that it should not be looked upon as a complication of the disease, occurring exceptionally, but it should be looked upon as a natural feature, occurring with such unfailing regularity that an observer, watching carefully and critically gonorrhœal cases, must see very many of them before he meets with one which remains free from the so-called complication throughout the existence of the disease. I believe that it is practically almost always present, at some time, in cases of any considerable duration or severity. My attention was engaged in this direction some two years ago, and since that time, while I have not had for observation the large *clientèle* that would add materially to the weight of my observation, I have yet observed a very considerable number of cases of urethritis of all degrees of severity and duration; and I have not failed, so far, to demonstrate the existence of posterior infection in any case which displayed either of these characteristics—severity or persistency.

In the cases observed I can disclaim being myself the author of the posterior involvement, as I am not perniciously active or over-zealous in early treatment of a gonorrhœa, nor have the observations which confirmed this belief all been based on cases treated by myself from the outset, or even treated by anyone from the outset. They have occurred either in

cases treated by internal medication solely, by local medication solely, by both combined, or by neither—that is, lack of any treatment. So that the practically unfailing appearance in these cases cannot be attributed to the form or the kind of treatment, either unduly moderate or inconsiderately severe.

My habit of investigation as to the presence or absence of posterior urethritis in chronic gonorrhœa has been rather searching. I have endeavored not to overlook it in case it were present, as well as to be able to exclude it, were that possible. The double-glass urine test serves me usually, and seldom fails to indicate posterior infection, even when urination has occurred within one or two hours previously. The irrigation test may also be employed satisfactorily. In some cases, however, in which the second portion of the urine is practically clear and therefore not indicative of posterior infection, subsequent study of the case has shown that posterior inflammation was present, rendered manifest by the passage of a bulb-sound into it, or of a soft rubber irrigation catheter, and afterward by the cloudy appearance of the second portion of the urine. The necessity, therefore, for searching investigation in this respect has been made apparent; I do not exclude it on simply the appearance of the urine passed at the first examination.

The classical description of the progress of gonorrhœa represents it as gradually passing from the meatus, following its commencement there as an inflammatory process, backward along the mucous surface toward the bulbous portion, which, because of slow progression, it does not reach until about the second or third week (Finger and others). Various reasons are given to explain why it does not readily or usually pass from this portion further backward into the posterior urethra. Guyon says it is because of the resistance offered by the tonic contraction of the cut-off (compressor urethræ) muscle, located just proximal to the bulb, which muscle, as is well known, prevents the ready ingress of fluid, etc., through it. Others† point to the paucity of glands and vessels in the posterior, as compared with the anterior urethra, rendering it an uninviting field for the establishment of the inflammation there. These writers, while endeavoring to harmonize as to effects, evidently disagree as to causes; for while Brewer denies the discriminating intelligence for excluding the inflammatory process ascribed to the external sphincter by Guyon, Guyon evidently places as little faith in the alleged paucity of glands of this part of the urethra, as he says‡ the follicles (urethral) are met with in three portions of the urethra; the simple, racemose glands are scattered through the spongy portion and the membranous portion. So our opponents, who should be allies, furnish us with material for the refutation of their own arguments; and were it not that the causes given to account for the presence of this so-called complication are infrequent, we should at once be reduced to the conclusion that this is necessarily a frequent condition in gonorrhœa. That is, those who argue for its infrequency furnish little reason why it should be infrequent.

†Brewer: *Syst. Gen. Urinary Surgery and Ven. Dis.*, 1893.

‡*Lecons cliniques sur les Maladies des Voies Urin.* 1885, p. 721.

The causes they give for its establishment are said to be both internal and external. Representing the former class we have constitutional debility or lack of general resisting power, which, of course, makes lack of local resisting power.

Exhaustion from over-exercise is named as acting similarly. Illustrative of the second class of causes (external) sexual intercourse, the forced or awkwardly administered injection, or the passage of an instrument (catheter?) are chiefly complained of by writers on the subject—extremely seldom by the patients themselves. Indeed, were the posterior inflammation always to await introduction by one of these alleged external causes, it would assuredly be an infrequent complication, since they are not incidents in the vast majority of cases of active gonorrhœa. Gonorrhœa patients are not usually consumptive or diabetic or decrepit from such exhausting diseases; nor are they in the habit of having sexual intercourse in the active stage of the affection, or of passing instruments—that oft-proclaimed but never observed cause for primarily exciting posterior inflammation. Horteloup has investigated the probable influence of the passage of a sound or of a forced injection in such cases; he has experimentally tried them, and without setting up posterior inflammation. The very inadequacy, then, of these several causes as excitors of posterior urethritis is the strongest argument we can discern for its being of infrequent occurrence. And yet clinical investigation shows that it is of frequent occurrence—of exceedingly frequent occurrence. Supporting my convictions as to this point, I have the following statistics of authors who have been pursuing a similar study of late years: Letzel asserts that of 53 cases of primary gonorrhœa under his care the posterior urethra remained unaffected in only 4 cases, making the frequency of posterior urethritis 92.5 per cent in this series*; Jadassohn† found posterior urethritis in 143 of 163 cases of gonorrhœa, thus making 87.7 per cent; Rona‡ declares that it was proved to be present in 79.7 per cent of his cases; Eraud found it present in eighty per cent of all (acute and chronic) of his cases.

Ground for belief in the surpassing frequency of posterior urethritis seems, then, to be established, and it remains to harmonize this fact of frequency with the reason for frequency, since that is certainly not done by any of the teachings alluded to. Bearing on this point the time and mode of infection of the posterior urethra are important. We have been taught that the mode is by continuity of tissue, the inflammatory process travelling over the surface of the urethral mucous membrane, gradually approaching the cut-off muscle, which it reaches and passes (if the posterior portion become affected) about the third week.

Again, I would submit the practical teachings of the clinic as confuting the teachings of the text-book; for I have repeatedly observed the proof of the setting-up of posterior inflammation long before the time scheduled for its usual appearance. Rona (*Ibid.*) says that in the cases which he watched, instead of its awaiting the third week of the disease, posterior

*Int. Cent. für Physiol. und Path. der Harn und Sexual-Organe, Bd. 2, H. 6, 1890.

†Beiträge zur Lehre der Urethritis posterior, Verhandlungen der deutschen dermatolog. Gesellschaft. Wien, 1889. Braumüller.

‡Pester Medizinisch-chirurgische Presse, No. 35, 1892.

inflammation made its appearance in the first (active) week in 82.9 per cent of the cases in which the posterior portion became involved; and Heissler§ asserts that in twenty per cent the prostatic urethra becomes affected in the course of the first week, in thirty-four per cent in the course of the second week, in fourteen per cent in the course of the third week, in twenty per cent in the fourth week, in four per cent in the sixth and seventh weeks, and in two per cent in the second and third months.

These records do not bear out the claim for the gradual progression of the inflammation by continuity to the posterior urethra, but they argue forcibly for the correctness of the theory of Horteloup* that the infection is accomplished through the deep lymphatic ducts leading from the anterior to and through the posterior urethral membrane, emptying into the pelvic (internal iliac) glands (McClelland, Gray). If this be really so, it will explain satisfactorily the practical invariability with which the posterior urethra becomes involved, as determined by scrutinizing clinical examinations; it renders plain the small amount of influence played in this regard by the cut-off muscle, or the forced injection, or the alleged passage of instruments, sexual intercourse, etc. These have been uselessly, as well as unwarrantably, invoked to account for the complication that is no complication, but is merely one of the phenomena of the disease, gonorrhœa—a phenomenon whose importance, when present, there is no need for dwelling on before you gentlemen, but whose importance through frequency, and therefore in its bearing on almost every case of gonorrhœa, I wish to accentuate.

CONCLUSIONS:

1. The causes usually given for the prolongation of cases of clap (presence or absence of gonococci, stricture of large calibre, the use of particular drugs in treatment, etc.) do not satisfactorily explain them, nor do they furnish reliable means for prognosticating the outcome of a case.
2. A single widely prevalent cause for such prolongation of gonorrhœa has, as yet, not proved its right to recognition as such.
3. Posterior urethritis, by reason of its anatomical seclusion and inaccessibility to ordinarily-prescribed treatment, if frequent, offers the best explanation for such prolongation or repeated recurrence.
4. Scrutinizing clinical investigation shows posterior urethritis to be present in the great majority of cases of prolonged or severe gonorrhœa.
5. Direct, topical treatment to the posterior urethra is, therefore, necessary in the great majority of cases.
6. The causes usually given for producing posterior urethritis are not commonly found to be real factors in the clinic.
7. The mode of onset usually described does not coincide with that discerned in clinical observations.
8. These two latter observations confirm the probability that the posterior urethral infection is accomplished through the lymphatics, and explain the frequency of such infection.
9. Posterior urethritis is not a complication, but a natural phenomenon of gonorrhœa.

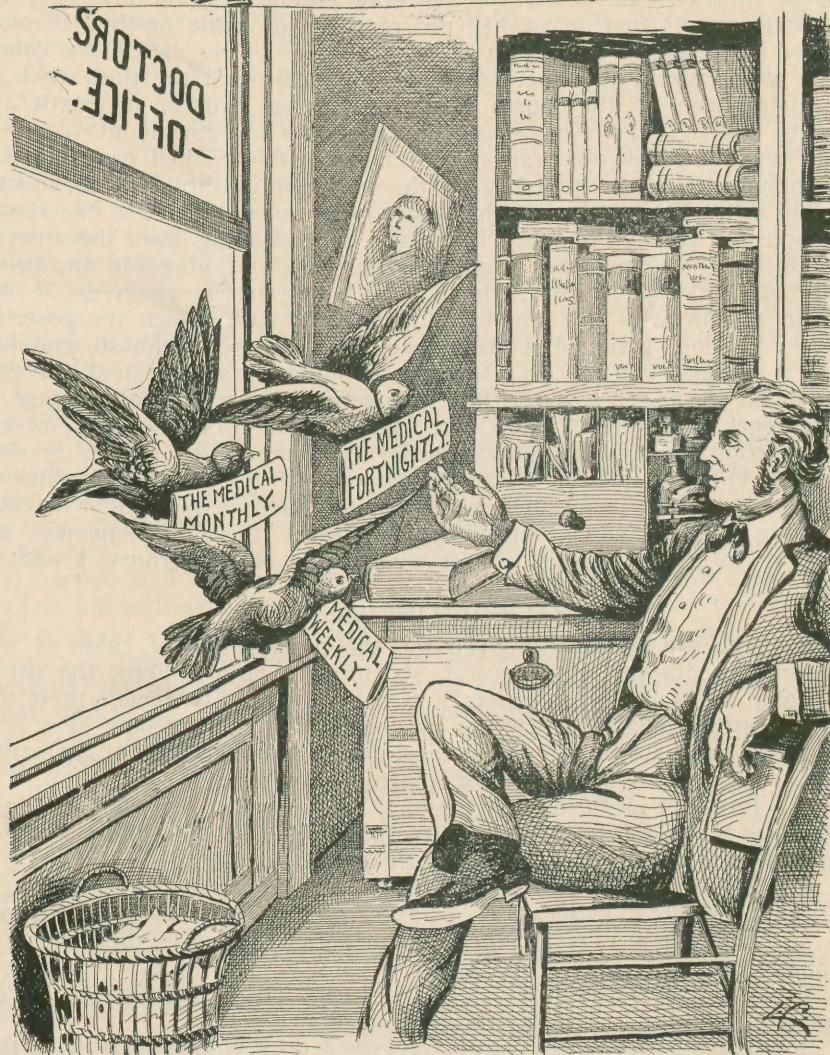
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§Ibid., 1891.

*Lecons sur—Urethrite chronique, 1892.

An Artist's Definition of "The HAPPY MEDIUM."



THE DOCTOR'S CHOICE

